

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A pattern forming method, comprising image-wise forming, on a surface of a substrate, a region where an initiator having an ability to initiate polymerization is image-wise fixed over the whole area of the substrate and then image-wise exposing to light to inactivate the polymerization-initiating ability of the initiator in the region exposed to light so that the initiator fixed on the region not exposed to light maintains its activity, forming a graft polymer on the region by atom transfer radical polymerization to form a hydrophilic/hydrophobic pattern which includes regions having a graft polymer formed and regions having no graft polymer formed, and applying a substance to the hydrophilic or hydrophobic region of the hydrophilic/hydrophobic pattern, wherein the atom transfer radical polymerization is conducted in the presence of a transition metal complex as a catalyst.

2. (previously presented): A pattern forming method according to claim 1, wherein the region where an initiator having an ability to initiate polymerization is image-wise fixed is formed by fixing a polymerization initiator thereon and the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

3. (original): A pattern forming method according to claim 1, wherein the substance is a colorant.

4. (original): A pattern forming method according to claim 3, wherein the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

5. (original): A pattern forming method according to claim 3, wherein the colorant is a dye.

6. (original): A pattern forming method according to claim 5, wherein the dye has a charge opposite to a charge of the graft polymer.

7. (original): A pattern forming method according to claim 1, wherein the substance is fine particles.

8. (original): A pattern forming method according to claim 7, wherein the graft polymer has a polar group.

9. (original): A pattern forming method according to claim 7, wherein the fine particles each have a charge opposite to a charge of the graft polymer.

10. (original): A pattern forming method according to claim 1, wherein the substance is a conductive material.

11. (original): A pattern forming method according to claim 10, wherein the graft polymer has a polar group.

12. (original): A pattern forming method according to claim 10, wherein the conductive material is fine conductive particles each having a charge opposite to that of the graft polymer.

13. (original): A pattern forming method according to claim 10, wherein the conductive material is a conductive polymer comprising a conductive monomer which can be adsorbed by a functional group of the graft polymer through ionic force.

14. (currently amended): A substance adherence pattern material prepared by image-wise forming, on a surface of a substrate, a region where an initiator having an ability to initiate polymerization is image-wise fixed over the whole area of the substrate and then image-wise exposing to light to inactivate the polymerization-initiating ability of the initiator in the region exposed to light so that the initiator fixed on the region not exposed to light maintains its activity, by forming a graft polymer on the region by atom transfer radical polymerization, and by applying a substance to the graft polymer,

wherein the atom transfer radical polymerization is conducted in the presence of a transition metal complex as a catalyst.

15. (previously presented): A substance adherence pattern material according to claim 14, wherein the region where an initiator having an ability to initiate polymerization is image-wise fixed is formed by fixing a polymerization initiator thereon and the graft polymer contains a monomer having hydrophilicity/hydrophobicity opposite to the hydrophilicity/hydrophobicity of the polymerization initiator.

16. (original): A substance adherence pattern material according to claim 14, wherein the substance is a colorant.

17. (original): A substance adherence pattern material according to claim 14, wherein the substance is fine particles.

18. (original): A substance adherence pattern material according to claim 17, wherein the graft polymer has a polar group.

19. (original): A substance adherence pattern material according to claim 17, wherein the fine particles each have a charge opposite to that of the graft polymer.

20. (original): A substance adherence pattern material according to claim 14, wherein the substance is a conductive material.

21. (original): A substance adherence pattern material according to claim 20, wherein the graft polymer has a polar group.

22. (original): A substance adherence pattern material according to claim 20, wherein the conductive material is fine conductive particles having a charge opposite to that of the graft polymer.

23. (original): A substance adherence pattern material according to claim 20, wherein the conductive material is a conductive polymer comprising a conductive monomer which can be adsorbed by a functional group of the graft polymer through ionic force.